

REMARKS

This Amendment is filed in response to the non-final Office Action dated August 26, 2008, and is respectfully submitted to be fully responsive to the rejections raised therein. Accordingly, favorable reconsideration on the merits and allowance are respectfully requested.

In the present Amendment, the specification has been amended by deleting tackifier resin and the values thereof from Table 1. The tackifier resin is already included in the pressure sensitive adhesive compositions E-1 to E-6. Support for the amendment can be found in the specification, e.g., in Examples 1 to 3 and in Comparative Examples 1-3 beginning on line 11 on page 19 to line 27 on page 20.

Furthermore, claim 1 has been amended by incorporating the subject matter of claim 2.

Claim 2 has been canceled without prejudice.

Claims 5 and 6 have been amended to depend from claim 1.

Claims 4, 6 and 7 have been amended to improve their grammatical form.

No new matter has been added. Entry of the Amendment is respectfully submitted to be proper. Upon entry of the Amendment, claims 1 and 3-7 will be all the claims pending in the application.

Claims 1 and 3-7 are all the claims pending in the application.

The Rejections

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 05-302026 (Toda) in view JP 05-059267 (Watabe).

Claim 1 and 4 were rejection under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,706,813 (Chiba) in view of Watabe.

Traversal

Applicant traverses and requests that the rejection be withdrawn in view of the following remarks.

The pressure sensitive adhesive product of the present invention is obtained by curing the pressure sensitive adhesive composition comprising the components (A), (B), and (C), as recited in claim 1. The main chain of the organic polymer (A) in the present invention is substantially composed of a repeating unit or units represented by the general formula -R¹-O-, wherein R¹ represents a divalent alkylene group. The combination of these components achieve advantageous results, as is clearly shown in the Examples of the present application, as discussed below.

In present Example 1, for instance, the pressure sensitive adhesive composition E-1 is used. E-1 is a mixture of the polymer mixture D-1 (100 weight parts) and the tackifier resin (50 weight parts). D-1 is obtained by mixing the polymer A-1 (100 weight parts) and the polymer B-1 (30 weight parts). The adhesive strength of the pressure sensitive adhesive film is 30.6 N/25 mm.

In Comparative Example 2, the pressure sensitive adhesive composition E-5, which is a mixture of the polymer A-1 (100 weight parts) and the tackifier resin (100 weight parts), is used. The adhesive strength of the pressure sensitive adhesive film is 10.2 N/25 mm.

In Comparative Example 1, the pressure sensitive adhesive composition E-4 is used. E-4 is a mixture of the polymer mixture D-4 (100 weight parts) and the tackifier resin (50 weight parts). D-4 is obtained by mixing the polymer A-1 (100 weight parts) and Actcol P-23 (30 weight parts). The adhesive strength of the pressure sensitive adhesive film is 7.6 N/25 mm.

E-1 (Example 1) is different from E-5 (Comparative Example 2) in that the polymer B-1 is contained. Adding a certain amount of the polymer (B) tripled the adhesive strength of the cured product.

E-1 (Example 1) is also different from E-4 (Comparative Example 1) in that the polymer B-1 having a hydrolysable silyl group is used. The presence of the hydrolysable silyl group causes the adhesive strength of the cured product to quadruple.

As shown above, the effect of combination of the components (A), (B) and (C) is conspicuous.

The Examiner concedes that Toda does not explicitly teach the addition of an oxyalkylene polymer having the structural and molecular weight limitations in component B of instant claim 1. According to the Examiner, motivation to add the low molecular weight oxyalkylene polymers as taught by Watabe into the compositions taught by Toda is assertedly derived from the need to employ the low molecular weight compound (II) of Watabe into the composition of Toda, since the compound (II) has improved properties over the plasticizers taught by Toda.

JP 5-302026

JP 5-302026 (Toda) discloses a curable composition comprising (a) polymer having a main chain essentially consisting of a polyether and terminated with a cross-linkable hydrolyzable silyl group, (b) resin such as a rosin ester resin and (c) curing catalyst. The polymer (a) has a molecular weight of 4,000 to 30,000 (paragraph [0013]).

JP 5-59267

JP 5-59267 (Watabe) discloses a curable composition comprising a high molecular weight polymer (I) containing hydrolysable silicon groups and having a high molecular weight (8,000 to 50,000) and a low molecular weight compound (II) containing hydrolysable silicon groups and having a main chain of polyether. The compound (II) preferably has a molecular weight of 2,000 to 4,000 (paragraph [0035]).

Neither Toda nor Watabe teaches that the combination of (A) a hydrolyzable silyl group-containing organic polymer having a number average molecular weight of 15,000 to 100,000; (B) a hydrolyzable silyl group-containing organic polymer having a number average molecular weight of 500 to 15,000; and (C) a tackifier resin provides a high adhesive strength.

As already shown from the comparison of Example 1 and Comparative Example 2, the composition containing the polymer (B) together with the polymer (A) and the tackifier (C) provides unexpected adhesion strength. Even if Toda and Watabe are considered together, one having ordinary skill in the art would not expect, based on the teaching of Toda and Watabe, that such a high adhesive strength could be obtained.

Since the effect of the present invention is conspicuous and cannot be expected to be achieved based on the teachings of Toda and Watabe, the present invention is not rendered obvious.

Next, the Examiner apparently is of the opinion that there is a motivation to employ the low molecular weight compound (II) of Watabe into the composition of Chiba, since the compound (II) has improved properties over the plasticizers taught by Chiba.

U.S. Patent 6,706,813

U.S. Patent 6,706,813 (Chiba) discloses a curable composition comprising (B) isobutylene polymer having a silicon group bound to a hydrolyzable group and a molecular weight of 500 to 100,000 (see, Chiba at col. 3, line 8 to col. 4, line 19); and (A) block copolymer having at least one block species formed from an aliphatic hydrocarbon compound (see, Chiba at col. 2, line 9 to col. 3, line 7).

However, neither (B) isobutylene polymer nor (A) block copolymer of Chiba is a compound whose main chain is polyether. Therefore, even if the low molecular weight compound (II) of Watabe is employed into the composition of Chiba, the pressure sensitive adhesive composition of claim 1, as amended, cannot be obtained. Applicant respectfully submit that it is impossible to foresee the effect of the present invention from these references.

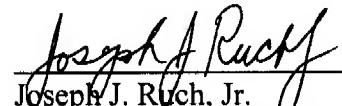
Accordingly, the present invention is not rendered obvious, and the rejection should be withdrawn.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the local Washington, D.C. telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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